

Product datasheet for **SC119707**

ALDH3B1 (NM_000694) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH3B1 (NM_000694) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALDH3B1
Synonyms:	ALDH4; ALDH7
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119707 sequence for NM_000694 edited (data generated by NextGen Sequencing)

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ATGGACCCCTTTGGGACACGCTGCGGCGACTGCGGGAGGCTTCCACGCGGGGCGCACG
CGGCCAGCTGAGTTCGGGCTGCGCAGCTCCAAGGCTGGGCCGCTTCTGCAAGAAAAC
AAGCAGCTTTCGACGACGCACTGGCCAGGACCTGCACAAGTCAGCCTTCGAGTCGGAG
GTGTCTGAGGTTGCCATCAGCCAGGGCGAGGTCACCCTGGCCCTCAGGAACCTCCGGGC
TGGATGAAGGACGAGCGTGTGCCAAGAACCTGGCCACGCACTGGACTCCGCCTTCATC
CGGAAGGAGCCCTTTGGCCTGGTCTCATCATTGCGCCCTGGAACATATCCGCTGAACCTG
ACGCTGGTGCCTCTCGTGGGAGCCCTCGCTGCAGGAACTGTGTGGTGTGAAGCCATCG
GAGATTAGCAAGAAGCTCGAGAAGATCCTGGCCGAGGTGCTGCCCAATACGTGGACCAG
AGCTGCTTTGCTGTGGTGTGGGCGGGCCAGGAGACGGGGCAGCTGCTAGAGCACAGG
TTCGACTACATCTTTCACAGGGAGCCCTCGTGTGGCAAGATTGTTATGACTGCTGCC
GCCAAGCACCTGACACCTGTACCCTGGAGCTGGGGGCAAGAACCCTTGTACGTGGAC
GACAACTGCGACCCAGACCGTGGCCAACCGCTGGCCTGGTTCGCTACTTCAACGCC
GGCCAGACCTGCGTGGCCCCGACTATGTCTATGCAGCCCTGAGATGCAGGAGAGGCTG
CTGCCTGCCCTGCAGAGCACCATCACCCGTTTCTATGGCGACGACCCCGAGACTCCCA
AACCTGGGCCGCATCATCAACCAGAAACAGTTCACGCGGTGCGGGCATTGCTGGGCTGC
GGCCGTGTGGCCATTGGGGGCCAGAGCGATGAGAGCGATCGCTACATCGCCCCACGGTG
CTGGTGGATGTGCAGGAGATGGAGCCTGTGATGCAGGAGGAGATCTTCGGGCCCATCCTG
CCCATCGTGAACGTGCAGAGCTTGGACGAGGCCATCGAGTTCATCAACCGCGGGGAGAAG
CCCCTGGCCCTGTACGCCTTCTCAACAGCAGCCAGGTGGTCAAGCGGGTGTGACCCAG
ACCAGAGTGGGGCTTCTGTGGAAACGACGGCTTCATGCACATGACCCTGGCCAGCCTG
CCTTTTGGAGGAGTGGGTGCCAGTGGGATGGGCCGTACCATGGCAAGTCTCCTTCGAC
ACCTTCTCCACCATCGCGCCTGCCTCCTGCGCAGCCCGGGGATGGAGAAGCTCAACGCC
CTCCGCTACCCGCGCAATCGCCGCGCCCTGAGGATGCTGCTGGTGGCCATGGAGGCC
CAAGGCTGCAGCTGCACACTGCTCTGA
    
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Clone variation with respect to NM_000694.2
 747 c=>t;1149 c=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000694 unedited

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GGGGGGGGGNNNNNNNNNNNNNNNNNNNTGTTTCAGATTTGTATACGACTCACTATAGGC
GGCCGCGAATTCGCACCAGCTTGGCAGAGCCTCAGGATGGACCCCTTGGGGACACGCTG
CGGCGACTGCGGGAGGCTTCCACGCGGGGCGCACGCGCCAGCTGAGTTCGGGCTGCG
CAGCTCCAAGGCTGGGCCGCTTCTGCAAGAAAACAAGCAGCTTCTGCACGACGCACTG
GCCCAGGACCTGCACAAGTCAGCCTTCGAGTCGGAGGTGTCTGAGGTTGCCATCAGCCAG
GGCGAGGTCACCCTGGCCCTCAGGAACCTCCGGGCTGGATGAAGGACGAGCGTGTGCC
AAGAACCCTGGCCACGCACTGGACTCCGCCTTATCCGGAAGGAGCCCTTTGGCCTGGTC
CTCATCATTGCGCCCTGGAACATCCGCTGAACCTGACGCTGGTGCCTCGTGGGAGCC
CTCGCTGCAGGAACTGTGTGGTGTGAAGCCATCGGAGATTAGCAAGAAGCTCGAGAAG
ATCCTGGCCGAGGTGCTGCCCAATACGTGGACCAGAGCTGCTTTGCTGTGGTGTGGGC
GGGCCCCAGGAGACGNGCAGCTGCTAGAGCACAGGTTTCGACTACATCTTTCACAGGG
AGCCCTCGTGTGGCAAGATTGTTATGACTGCTGCCGCAAGCACCTGACACCTGTACC
CTGGAGCTGGNGGGCAAGAACCCTTGTACGTGGACGACAACCTGCGACCCCGAGCCGT
GCCAACCGCGTGGCCTGGTTCGCTACTTCAACGCCGCGCCAGACCTGCGTGGCCCCGA
CTATGTCTATGCACCCCTGAAATGCANNGAAAGGCTGCTGCCTGCCCTGCAGAGACAT
CACCCGTTTCTAGGGCGACGACCCCAAGCTNCCCAACT
    
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Restriction Sites: NotI-NotI
ACCN: NM_000694
Insert Size: 2750 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_000694.2](#), [NP_000685.1](#)

RefSeq Size: 2857 bp

RefSeq ORF: 1407 bp

Locus ID: 221

UniProt ID: [P43353](#)

Cytogenetics: 11q13.2

Domains: aldedh

Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - cytochrome P450, Glycolysis / Gluconeogenesis, Histidine metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Phenylalanine metabolism, Tyrosine metabolism

Gene Summary:

This gene encodes a member of the aldehyde dehydrogenase protein family. Aldehyde dehydrogenases are a family of isozymes that may play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. The encoded protein is able to oxidize long-chain fatty aldehydes in vitro, and may play a role in protection from oxidative stress. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]

Transcript Variant: This variant (1) encodes the longest isoform (a). Variants 1 and 3 encode the same isoform.